Annual Report

Department of Fisheries

Prince Edward Island

for the year ended December 31st

1983

A P.E.I. OFFSHORE DRAGGER UNLOADING CATCH, SOURIS, P.E.I.

TO HIS HONOUR

THE HONOURABLE J. A. DOIRON,

Lieutenant-Governor of the Province of Prince Edward Island

May It Please Your Honour:

I have the honour to submit herewith the Report of the Department of Fisheries for the period ended December 31, 1983.

I have the honour to be, Sir,

Your obedient servant,

HONOURABLE RODDY B. PRATT

Minister

TO THE HONOURABLE **RODDY B. PRATT**

MINISTER OF FISHERIES

Charlottetown, P.E.I.

Sir:

I have the honour to submit herewith the Report of the Prince Edward Island Department of Fisheries for the period ended December 31, 1983.

Respectfully submitted,

HARRY O'CONNELL

Deputy Minister

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FOREWORD

Harry O'Connell, Deputy Minister

Atlantic Canada's fishery again experienced its ups and downs in 1983. The groundfish sector continued to experience difficulty with financial reorganization of the major processors and the resultant nervousness in the market place, coupled with a rather slow emergence from the overall economic recession. The long promised financial restructuring of major corporate interests coming forth from the completed Kirby Commission Report was still not finalized by year end.

The Prince Edward Island fishery, however, was more buoyant than ever during the year such that 1983 remains the best ever for the industry. As a whole, fish landings and dollar value were up by $9 million to $44 million, with the lobster fishery in particular being the major contributor in most parts of the Island.

The processing sector also experienced a good year as a result of these higher landings and the processed value of our Island products went up substantially. The continued closure of Georgetown Seafoods in 1983 not only aggravated the loss of employment and fish purchasing but continues to reduce the share of total Atlantic offshore fish coming to our Province. The soft market for groundfish experienced in previous years was overcome somewhat by a highly successful pilot project mounted by the Department to market fresh fish directly to the New England area.

The P.E.I. Department of Fisheries is pleased with the results of this year's efforts on behalf of the industry. The priority and energy devoted to marketing efforts by departmental staff resulted in successfully demonstrating that fresh fish can be marketed directly in the U.S.A. provided quality and consistent supply can be assured. We are confident this year's effort can be followed up and expanded by P.E.I. suppliers in the years ahead.

1983 also saw the opening of the Island Saltfish Incorporated enterprise for the purpose of drying P.E.I.'s salt hake and cod products here on the Island to add value to our raw products and create employment. This business came about as a direct result of a major departmental study on the feasibility of salt fish drying permitting five local salt fish producers to incorporate together into one company to undertake the project.

In addition, the Department is most pleased at the successful launching of a pilot project to encourage Island fishermen to go further off-shore to catch P.E.I.'s share of the total allowable catch of groundfish species. In 1983 two large fibreglass boats were constructed with 25 ton capacities and will be fishing out of the Souris area immediately. This pilot project was part of our objective to capitalize on opportunities to ensure increased landings of raw resources on the Island, particularly, in extending the fishing season. The results of this will boost landed value and processing thru-put securing increased job creation. We remained convinced that fishermen will demonstrate further interest in these efforts in future years putting in place a fleet of such near/off-shore vessels confirming P.E.I.'s proper place in the Gulf fishery.

The Department has moved forward on these opportunities in the harvesting and processing sectors and has also been pleased to assist in tackling other special opportunities available as a result of the Island's particular resources. Mussels and culturing of other species have been fruitful and expansionary during 1983 and a pilot effort at harvesting and processing the abundant rock-crab resources has resulted in a most appropriate consumer product for the possibility of further private efforts in this regard. 1983 also saw the Irish Moss extraction plant in Anglo developing an acceptable chemical process to extract carrageenan from Irish Moss. Further efforts will hopefully lead to a fully operational commercial facility to add value and jobs to the local community and bring security to the moss harvesting sector.

The total budget for Fisheries in 1983 was 1.5 million dollars and permitted the continuance of major operational efforts in Extension, Processing and Quality and Production. New programs developed included the Commercial Fishermen's Investment Incentive Program providing interest relief on a range of fishermen's loans

and replacing the Provincial Vessel Subsidy Program, Mussel Farm Loan Guarantee Program, Near/Off Shore Fleet Development Program and Fishing Industry Technology Program.

While the fishing industry continued to face difficult financial times in Atlantic Canada, the P.E.I. industry grew at an unprecedented rate. The structure of our industry as a small scale owner-operated business sector in largely a day boat fishery enabled P.E.I. to pursue opportunities for increased landings and value added, thereby securing a brighter future for fishermen, processors and employees directly and indirectly involved with the industry.

A note of gratitude needs to be expressed to the various sectors of the fishing industry for their cooperation, guidance and support during 1983. Fishermen, processors and their organizations have aided the design of departmental directions and have worked cooperatively with us in addressing opportunities and difficulties.

I would also like to acnnowledge with sincere thanks the untiring and dedicated efforts of fisheries staff. Their knowledge of the industry and the professionalism of their contacts with fishermen, processors, organizations and other government officials makes my job a pleasure and provides a stable co-ordinated base for the industry. The experience and respect with which this small, but efficient, staff are held in the opinions of all in this industry bring credit to this group as one of the best operational units in any government.

PRINCE EDWARD ISLAND FISHERIES

The year 1983 has been satisfactory in most areas of the P.E.I. Fishery with landings increasing by 3,324,208 lbs. over the 1982 recorded figures. Preliminary figures show 1983 landings of 116,438,803 pounds. The total landed value of all fishery products reached $44.2 million, an increase of 24.8% over the 1982 value.

The industry presently employs 5,013 people, approximately 3,013 in fishing and 2,000 in processing. Many more are employed in industries which support the fishery such as outfitting and vessel construction. It is estimated that in excess of $100 million is contributed annually to the Prince Edward Island economy from the primary and secondary sectors and support industries.

Total groundfish landings in 1983 increased to 45 million pounds representing a 6.3% increase for 1982. The value increased slightly by 1.1% reaching a total of $4.9 million. With respect to the dominant groundfish species, increases have been recorded in landings of cod and redfish, while decreases have occurred in landings of hake and flounder. Cod landings increased by 41.2% raising the landings from 10.6 million pounds in 1982 to 14.9 million pounds in 1983. The value of these landings increased by 43% showing a landed value of $1.8 million. Redfish landings from the offshore fleet sector increased from 14.5 million pounds to 15.8 million pounds, showing a 9.3% increase. The value of these landings also increased by 9.3% to reach a value of $1.7 million. Hake and flounder landings showed declines with a decrease of 25.3% and 4.6% respectively.

Landings of pelagic and estuarial fish increased to 20,736,377 pounds up from 18,045,474 pounds in 1982. The value increased by 40.2% reaching a total of $3.5 million. A major factor for the increase in landings was due to the herring fishery which increased by 23% to reach a total of 14.1 million pounds with a value of $1.4 million. Tuna, smelt and silverside landings doubled, and eel land-

ings increased by 60.2%. The value of tuna, silversides and smelts more than doubled while the value of eels increased by 31.9%. Mackerel landings and value showed a decline with a 13.3% decrease in both landings and value compared to last year.

Total mollusc and crustacean landings remained relatively steady for 1983 although the landed value increased from $26.3 million to $34.4 million, showing an increase of 30.2%. The lobster fishery did exceptionally well this year with an increase of 27% in landings to reach an all time record of 15.5 million pounds. The value increased by 28.6% to reach yet another record total of $29.1 million. Scallop landings increased by 37.6% while their value more than doubled. Oyster landings increased by 516,600 lbs. in 1983 showing a 26.9% increase over 1982's figure in both landings and value. Mussel landings and value have also more than doubled over 1982.

Seaplant landings decreased by 5.3 million pounds to 28.7 million pounds for 1983 with a landed value decline of 15.6% giving a total of $1.4 million.

The landed weight and value for fish and seaplants in P.E.I. in 1983 with comparative figures for 1982 are as follows:

P.E.I. FISH LANDINGS AND VALUE 1982 - 83

SPECIES	1982 Pounds	1982 $000 Value	1983* Pounds	1983* $000 Value
GROUNDFISH				
Cod	10,606,779	$ 1,309.0	14,977,695	$ 1,872.0
Hake	10,362,808	1,036.0	7,737,113	464.0
Flounder	5,668,472	807.0	5,406,230	771.0
Redfish	14,533,982	1,598.0	15,888,522	1,747.0
Haddock	2,562	0.4	—	—
Halibut	14,867	15.0	22,267	18.0
Pollock	1,949	0.2	—	—
Tomcod	12,555	0.6	19,680	0.5
F. Meal	1,145,960	57.0	994,158	10.0
Catfish	2,495	0.2	—	—
TOTAL	42,352,419	$ 4,823.4	45,038,665	$ 4,882.5
PELAGIC				
Tuna	352,531	$ 387.0	754,236	$ 1,131.0
Herring	11,474,624	1,147.0	14,112,165	1,411.0
Mackerel	5,274,422	632.0	4,573,653	549.0
Smelts	247,419	25.0	499,693	75.0
Alewives	284,157	34.0	122,439	12.0
Eels	279,548	238.0	447,938	314.0
Salmon	2,188	7.6	2,476	6.0
Silversides	83,288	8.3	177,642	18.0
Trout	22,000	44.0	11,550	22.0
Other	25,297	1.3	34,585	0.3
TOTAL	18,045,474	$ 2,524.2	20,736,377	$ 3,539.3
SHELLFISH				
S.S. Clams	615,648	203.0	577,219	173.0
Bar Clams	685,600	144.0	944,782	189.0
Quahaugs	1,165,013	466.0	1,118,140	615.0
Mussels	152,751	107.0	357,771	233.0
Oysters	1,917,585	1,016.0	2,434,185	1,290.0
Lobsters	12,170,692	22,599.0	15,451,520	29,056.0
Scallops	307,011	1,075.0	422,610	2,536.0
O. Quahaugs	70,975	7.0	—	—
Snow Crab	1,567,346	762.0	417,138	250.0
Rock Crab	—	—	—	—
Squid	127	—	—	—
TOTAL	18,672,748	$26,379.0	21,964,596	$34,365.0
TOTAL FISH	79,070,641	$33,726.6	87,729,638	$42,786.8
MARINE PLANTS	34,043,954	$ 1,702.0	28,709,165	$ 1,435.0
TOTAL FISHERY PRODUCTS	113,114,595	$35,428.6	116,438,803	$44,221.8

* Preliminary

The following table shows the comparisons for P.E.I.'s landings and values, by species, groups, over the period 1960-1983.

Prince Edward Island, 1960 - 1983

Landings, Quantity and Values by Species
(In thousands of lbs. and thousands of dollars)

		Groundfish	Pelagic & Estuarial	Molluscs & Crustaceans	Marine Plants	Seafish Total Excluding Marine Plants		Total
1960	Q.	23,258	5,731	13,294	12,598	42,283	Q.	54,781
	V.	650	243	3,854	161	4,447	V.	4,639
1961	Q.	19,873	3,715	13,076	19,039	36,664	Q.	55,703
	V.	546	155	3,472	316	4,173	V.	4,489
1962	Q.	21,888	4,303	11,430	17,341	37,620	Q.	54,971
	V.	680	150	3,531	288	4,361	V.	4,649
1963	Q.	21,077	6,515	10,872	10,559	38,464	Q.	49,023
	V.	675	236	3,551	163	4,462	V.	4,625
1964	Q.	21,449	8,177	11,388	7,123	41,011	Q.	48,139
	V.	693	288	4,671	108	5,625	V.	5,750
1965	Q.	22,710	11,464	12,067	17,140	46,241	Q.	63,381
	V.	779	267	5,779	258	6,825	V.	7,083
1966	Q.	34,601	12,815	10,705	26,711	58,171	Q.	84,882
	V.	1,303	337	4,268	506	5,998	V.	6,504
1967	Q.	25,816	7,248	11,462	47,997	44,526	Q.	92,503
	V.	912	224	5,831	1,220	6,967	V.	8,187
1968	Q.	23,110	11,329	12,556	53,656	40,995	Q.	100,651
	V.	789	339	6,251	1,168	7,399	V.	8,567
1969	Q.	25,557	12,345	11,134	51,788	40,037	Q.	100,854
	V.	984	311	6,271	1,209	7,566	V.	8,777
1970	Q.	33,668	54,863	11,837	67,004	100,358	Q.	167,360
	V.	1,353	928	7,298	1,558	9,579	V.	11,167
1971	Q.	39,440	47,012	11,047	50,764	97,499	Q.	148,263
	V.	1,635	968	6,822	937	9,425	V.	10,361
1972	Q.	37,650	9,711	9,226	30,028	56,587	Q.	86,615
	V.	1,693	522	7,293	581	9,508	V.	10,089
1973	Q.	38,510	14,014	10,325	49,123	62,850	Q.	111,973
	V.	2,132	899	8,209	1,172	11,241	V.	12,414
1974	Q.	17,083	9,667	8,830	76,036	35,661	Q.	111,617
	V.	1,087	788	6,995	3,106	8,870	V.	11,977
1975	Q.	15,032	5,529	11,352	40,318	31,914	Q.	72,232
	V.	1,058	670	9,078	1,610	10,806	V.	12,416
1976	Q.	14,972	6,998	11,263	28,843	33,233	Q.	62,075
	V.	1,091	1,077	9,673	878	11,841	V.	12,719
1977	Q.	22,454	5,548	11,849	30,116	39,851	Q.	69,967
	V.	2,137	1,156	10,786	1,085	14,078	V.	15,164
1978	Q.	28,248	8,850	15,307	31,709	52,905	Q.	84,614
	V.	3,154	1,605	17,928	1,873	22,697	V.	24,560
1979	Q.	33,995	10,581	16,716	42,943	61,273	Q.	104,216
	V.	4,300	1,898	20,259	2,689	26,457	V.	29,146
1980	Q.	42,252	12,238	16,475	35,225	70,966	Q.	106,191
	V.	4,872	2,302	18,037	1,781	25,011	V.	26,792
1981	Q.	45,144	14,035	17,568	37,485	76,747	Q.	114,231
	V.	5,413	2,309	22,258	1,874	29,982	V.	31,856
1982	Q.	42,223	18,046	18,672	34,043	78,942	Q.	112,986
	V.	4,823	2,534	26,279	1,702	33,726	V.	35,428
1983	Q.	45,039	20,736	21,965	28,709	87,730	Q.	116,439
	V.	4,883	3,539	34,965	1,436	42,787	V.	44,222

ADMINISTRATION

J. Oswald MacKinnon

The approved budget of the P.E.I. Department of Fisheries for the fiscal year April 1, 1982 to March 31, 1983 was 1.433 million dollars. Amalgamation with the Industry Branch on October 28, 1982 resulted in total Department Expenditures for the year being 2.566 million dollars with the Fisheries component accounting for expenditures of 1.684 million dollars. (See Statement of Department Expenditures, page 46).

The programs of the Department were carried out by 12 full time Fisheries staff during 1983. In addition, 25 seasonal employees were on staff during the peak period of May to October.

During the period under review the organization of the Department was identified by four responsibility centres: Administration, Extension, Production, and Processing and Quality.

Primary functions carried out by Administration included accounting, personnel, secretarial services, budgeting, and inventory control.

Chief planning functions carried out during the period under review included coordination of existing and planned fisheries programs, assistance for their preparation and making suitable financial arrangements for their implementation.

EXTENSION

Lewie Creed, Friend Herring
and Irwin Judson

The role of the Extension Division is to keep the fishing industry well informed and to provide feedback from the industry which can be used by the Department to develop sound policies and programs. This work includes information programs, fisheries promotion, assistance of fishermen and their organizations, provision of training and technical upgrading, assistance in planning port maintenance and development and encouragement and technical assistance to the aquaculture industry.

Three staff members provided service to the fishing industry through personal contact in assigned areas of East, Central and Western ports in the province.

The staff performed a number of functions in the field including attendance at port committee meetings and fishermen's information meetings, meetings and advice to industry associations and developing and progressing the individual business enterprises of the fishermen. The port meetings and liaison with port committees are used to develop and progress port needs and plans and require continual follow-up and interaction with a number of Federal Departments and Agencies concerned with the fishery. This extension service in the various areas of the Province served to keep the Department well informed of activities in the many aspects of the fishery and provided a presence for the Department in the fishing communities.

The staff members of the Extension Division were also responsible for administering and delivering the following programs during 1983.

INFORMATION

A number of information programs were organized and carried out by the Extension Division during the year.

Radio Broadcasts

A weekly five minute radio broadcast covering fish prices and markets was produced by the Division during the period May 1 - November 30, 1983. The program was aired on radio stations CFCY, CHTN and CJRW on Saturday evenings.

The fish price report was also aired on CBCT-FM each Monday morning as part of the Island Report broadcast.

As a special service to fishermen, the Extension Division sponsored marine weather broadcasts on the three local radio stations during the peak fishing period of April to November. This service was designed to assist fishermen by providing up-to-date weather information which they could use to make dicisions on their fishing operations.

A new feature was incorporated in the Marine Weather coverage this year by making use of the commercial time at the radio stations to promote Island fish. A series of 22 different radio spots were prepared by the Extension Division and aired during commercial time with the Marine Weather. These ads promoted our fish barbecue program, lobster and sales of other fresh Island fish.

Booth Displays

Display booths were placed at major fairs and exhibitions held throughout P.E.I. during the summer months. The purpose of the displays was to increase and promote general awareness of the P.E.I. fishing industry and the role of the Department.

Two summer employees were responsible for assembling the display and supervising its operation at the various events. The display was placed at Bedeque Days, the Tignish Irish Moss Festival, the Summerside Lobster Carnival, the Tyne Valley Oyster Festival, Country Days and Old Home Week, Miminegash Day and the Kensington Harvest Festival.

Publications and Releases

The Extension Division revised and updated a number of species information pamphlets on lobster, cod, scallop, softshell clams, mackerel and smelts. In cooperation with the Market Development Centre two special brochures were again printed. One of these brochures entitled "Out of the Sea and Over the Coals with P.E.I. Seafood" covered instructions on how to barbecue a variety of Island seafood and provided recipes for preparing a number of barbecue fish dishes. The brochures were used in conjunction with the demonstration fish barbecues presented by the Department at a number of Island campgrounds during the summer of 1983, as well as for general distribution.

The second joint publication was entitled "From the Deep Sea to the Deep Freeze" and it provides information on the proper methods for selecting, freezing and storing fish and shellfish.

Reprints were carried out on the popular recipe booklet "Seafood Sensation Volume II" and the recipe card publication "Serve Supreme Seafood".

A second printing of brochures providing details on four assistance programs of the Department was carried out. These brochures provided details on eligibility, amount of assistance provided and method of application for the Diesel Engine Conversion Program, Aquaculture Incentive Program, Fresh Fish Market Assistance Program and the Onboard Fish Handling Program.

The Extension Division continued the popular promotion button with the logo "Serve P.E.I. Fish - It's Catching" with 10,000 being distributed at booth displays and other functions during the year.

The Extension Division of the Department of Fisheries in cooperation with the Departments of Agriculture, Tourism and the Market Development Centre arranged for a presentataion of original Island recipes to be carried in the September issue of "Canadian Living" magazine. The 16 page special feature provided information on the Island's primary industries in addition to the recipe selection and was part of the magazine's Great Canadian Cookbook series which has covered each province of Canada over the past year. The recipe selections included 22 fish dishes featuring Island fish products.

This feature section of a national magazine with a circulation of more than 350,000 has provided excellent exposure for our fishery and fish products.

One issue of the newsletter "The Lighthouse" was published during the year. As well, a number of news releases on projects and programs of the Department were released to local news media and national and international fisheries trade journals. Promotional advertisements were also prepared for a number of publications.

November Fish and Seafood Month

November is designated as Fish and Seafood Month in Canada and the Extension Division in cooperations with the Production Division and the Market Development Centre launched a local fish promotion. The promotion consisted of newspaper and magazine advertisements, a series of radio ads promoting consumption of fish. posters and recipes being placed in food stores, mail-outs to retailers. restaurants and home economics classes and a press reception and seafood luncheon to kick-off the month long campaign.

The focus of the campaign was on the availability of the wide range of high quality fish and shellfish that P.E.I. has to offer to local consumers. Reaction to the campaign was quite favourable and numerous requests were received from Island consumers on recipe selection, sources of supply and storage of fish.

TECHNICAL UPGRADING

Through the Technical Upgrading Program the Extension Division assisted fishermen and processors to travel outside P.E.I. to view new fishing gear and equipment, attend worthwhile industry meetings or receive specialized training. During the year 1983 the following assistance was provided.

—Representatives of the seaplant industry were assisted to travel to Rockland, Maine on a fact finding mission.

—A group of seven Island dragger fishermen was assisted to visit the trawl test tank at the University of Rhode Island. The group also attended the Annual Fishermen's Convention

in Rhode Island, visited the fish auctions at Boston and New Bedford and toured a number of fishing ports in Massachusetts and Rhode Island.

—In cooperation with the Department of Fisheries and Oceans and the P.E.I. Fishermen's Association a group of 38 Island fishermen and processors were assisted to travel to Newfoundland. The tour featured attendance at Marine '83 a large fishing gear and offshore marine show in St. John's, as well as visits to a number of Newfoundland fishing ports. The tour provided an excellent opportunity to develop contacts in the Newfoundland fishery and exchange information on a one to one basis.

Through the Technical Upgrading Program the Department also gets involved in training for fishermen. During the January-March period of 1983, Record Keeping and Income Tax Preparation Courses were held throughout P.E.I. The courses were open to fishermen and their wives and were well received. The courses were presented by Holland College and were sponsored by P.E.I. Fisheries and the Atlantic Provinces Management Training Agreement.

In addition, the Extension Division worked closely with Manpower and Holland College officials to assess training needs in the fishing industry and ensure meaningful courses were offered. As a member of the Ad Hoc Committee on Fisheries Training the Division provided input on fisheries training.

Manpower Courses offered to fishermen and processors during 1983 included Nets and Gear, Retort Operation and Quality Control.

AQUACULTURE

The Department of Fisheries continued its support for the development of the Prince Edward Island aquaculture industry. Substantial investment in trout hatchery and growout facilities occurred in 1983 although production statistics declined somewhat from the previous year. Cultured mussel production more than doubled over 1982 and in this industry as well greatly increased supply can be expected as a large quantity of seed mussels have been set out.

1983 marked the second year of the Aquaculture Incentive Program which was devised with assistance in its design by the Trout Growers Association and Cultured Mussel Growers Association. The form of assistance depends upon whether (a) a mussel operation or (b) a trout operation is being established.

(a) Mussel Growing: A buoy stockpile was established upon which a mussel grower may draw up to 1,000 buoys. A total of 5,375 buoys valued at $15,160 were provided to eleven mussel growers in 1983.

A total of 20,650 buoys valued at $52,360 have been provided to 29 growers over the two years the program has been in existence.

(b) Trout Growing: The trout grower submits his proposal for the development of his trout operation and indicates the specialized items for which he desires assistance to a maximum assistance of $2,000. In addition, the grower may be forgiven the costs of up to 500 fingerlings for the first year. Five trout growers received a total of $4,680 in repayable assistance during the year and 1,500 free fingerlings valued at $515. were provided.

Fourteen trout growers received a total of $9,635 in repayable assistance as well as 5,000 free fingerlings valued at $2,160 in the first two years of the program.

In either case the grower is required to repay the value of assistance plus interest. When the assistance is repaid in full on or before the date of maturity, an incentive grant in the form of 25% deduction of the capital advance will be allowed.

A Mussel Loan Guarantee Program was initiated by the Department in late 1983 to provide confidence to the financial community until such time as the mussel culture industry has established a track record. The program is available to bona fide mussel growers possessing the necessary leases and licenses as well as at least two years pilot scale experience in mussel culture who wish to scale up to commercial operation. It is expected that this program will be a significant factor in the rapid expansion of the industry.

A number of other activities conducted in support of the mussel industry included meat yield analysis, production machinery, processing, transportation, winter harvesting and storage and marketing, each of which is elaborated elsewhere in this report.

Operations at the government owned Malpeque Oyster Cultures Inc. oyster hatchery were reviewed during 1983. In co-operation with the Prince County Shellfish Association using funds provided by Canada Community Development three projects were conducted. A total of 1,576 boxes of seed oysters were removed from the company's lease and respread on public grounds in each of the three counties. A total of 2,365 boxes of seed have been contributed to the public fishery over the two years of the project.

A second project prepared 140,000 veneer ring collectors for a natural oyster spat collection. Unfortunately oyster spatfall was very poor throughout the Island in 1983 and as it was evident that a worthwhile set would not occur, the collectors were removed from the water for re-use next summer.

The third project produced 1.6 million good quality quahaug juveniles by the hatchery facilities. The quahaugs were reared through the summer in trays and seeded in a public fishing zone in the Rocky Point area of Conway Narrows.

The project for the introduction of bay scallops to Prince Edward Island waters is continuing at the Ellerslie Fisheries Station. The Department's quarantine facilities have been made available to the project, now funded by Fisheries and Oceans. The quarantine period is now complete and scallops have been trial outplanted at a number of different sites. First year results have been encouraging with larger seed although small seed did not survive the winter.

The Department has assisted in the planning for the proposed Fish Health and Disease Unit to be associated with the Atlantic Veterinary College. A major function of the facility will be in teaching and research in the field of pathology. Using primarily commercial and cultured species in its research, the Unit will be a focus of veterinary skills and referral services for fish farmers, as well as lobster and eel pound operators.

Three associations representing three different facets of the aquaculture industry (Oystermen's Association, Cultured Mussel Growers Association, and Trout Growers Association) continued to speak with a unified voice for the industry. Representation was made to government on a wide range of concerns including quality standards, marketing, legislation and policy, education, fish habitat, transportation, packaging, tax and financial incentives, crop insurance, growing and storage technology. The same concerns were addressed at a National Aquaculture Conference at St. Andrew's, New Brunswick where a commitment leading to a national aquaculture plan was declared necessary.

PORT MAINTENANCE

The Department continued to provide for the minor maintenance and power consumption costs of 116 electrical services located at 57 Island fishing ports. These services include wharf lighting systems and electrical outlets as well as water system pumps. This service ensures that adequate lighting and water supplies are maintained and functional for the convenience and safety of all port users.

In cooperation with the P.E.I. Department of Health and Social Services the Extension Division helped coordinate a program which provided night watchmen at most major P.E.I. fishing ports. The watchmen were hired by Social Services through their Job Creation Program for social assistance recipients. The port committees and wharfingers at the various ports supervised the employees and the program was well received by fishermen. The presence of the night watchmen resulted in an almost total reduction in thefts and vandalism at the ports and supervision of boats, particularly during storm situations was credited with saving vessels from swamping on more than one occasion.

MAMMAL REMOVAL PROGRAM

The Department assumed responsibility for the removal and disposal of stranded marine mammals beginning in 1973 and in 1983, twelve marine mammals were identified at various shore locations and buried. The majority of these were seals, however the most spectacular and costly to remove was a 45 foot whale stranded near West Cape.

GENERAL

Increased oil drilling activity off the coast of Prince Edward Island in 1983 required that contingency plans be made in case of emergency. Consultations with oil drilling firms and resource planners resulted in fisheries and aquaculture resource maps being prepared with a great deal of input from the Department. Travel routes for offshore oil rig service vessels were designated in cooperation with fishermen so that minimum disruption of fishing activity would result.

Staff of the Extension Division represented the Department on various industry advisory committees including F.P.A.F.C. Development and quality Commiitees, the District 7 and 7B1 Scallop Advisory Committees, the District 8 Lobster Advisory Committee, the Seaplants Advisory Committee and the Ad Hoc Fisheries Training Committee.

As well, the Division coordinated a series of consultative meetings with fishing industry groups designed to provide input to the Department on programs, policies and budget consideration. Input was received from the P.E.I. Fishermen's Association, the Maritime Fishermen's Union, the P.E.I. Seafood Processors Association, the P.E.I. Oystermen's Association, the P.E.I. Mussel Growers Association, the P.E.I. Trout Growers Association and the Northumberland Strait Fishermen's Group.

PRODUCTION DIVISION

David Younker, Jim Murchison
Barb Pratt

The Production Division provides increased services to the fishing industry in recognizing market potential for product and working with the industry toward meeting this demand. Product availability is identified and markets are sought which offer adequate returns to the industry. Major objectives of this Division are — to promote the consumption of fish products both locally and outside the Province — to provide market intelligence to the industry which can be used to reach informed decisions on markets to serve and product forms best suited to local employment and economic returns — to monitor supply of raw material with particular emphasis on ensuring P.E.I.'s participation and fair share of quota allocations — to provide a service to the industry in test marketing new products and to encourage the development of a fresh fish industry on P.E.I.

This Division, in conjunction with the Processing and Quality Division works with the fishing industry in developing new projects for expansion and modernization of processing capability in order to achieve the objective of more added value to the fish products of P.E.I.

A brief description of the programs carried out by the Production Division during 1983 follow:

TEST PRODUCTION

This project was designed to support the marketing function by developing pilot projects to evaluate new market opportunities identified within the fishery.

Salt Fish

P.E.I. has been exporting wet salted hake and cod to Nova Scotia firms who have dryed the fish and sold it on world markets. Due to soft market conditions N.S. buyers have been hesitant to purchase P.E.I. fish and usually only after having secured a market for that produced in their Province. The Department sponsored a feasibility study in 1982 (Production and Marketing of Dried Salt Fish in P.E.I.) which led to a positive reaction from P.E.I. processors during 1983. Five processors working closely with the Department have invested in a company called "Island Saltfish Incorporated" which will begin production in January 1984.

These processors requested the services of Bruce Lewis to manage the Company and these arrangements were concluded with the Department. Island processors will now have greater control of this aspect of the salt fish trade, employment will be generated and fishermen will have a more steady market for their wet salt fish.

New England Fresh Fish

Work was also carried out in the marketing of fresh Island groundfish to the New England area of the U.S. Harald Norve of Harald Norve and Associates was hired on a contract basis and funded by the Market Development Center to work with staff of the Division in exploring the potential in that area and efforts made resulted in sales of approximately 1¼ million pounds of fresh groundfish.

A significant portion of the fish shipped was hake, a species for which little market existed for the past couple of years. Other species marketed included flounder, yellowtail, blackbacks, and cod. The fish was properly handled (bled, gutted, iced and washed) and the U.S. buyers were pleased with the quality. The result of this pilot project has been that substantially higher prices were achieved than had been previously experienced for these species in the past. The experience has proven that with the proper efforts on the part of fishermen and processors, Island fish can successfully compete on a demanding fresh market. It is hoped that these markets can be strengthened, expanded and diversified to fresh fillets in the coming year. Meetings are currently underwa y with Island processors to determine interest, volumes and conditions of sales.

Rock Crab

A good deal of emphasis during 1983 was placed on rock crab (Cancer irroratus), a species which is virtually unexploited in P.E.I.

A contract was entered into with Belle River Enterprises in eastern P.E.I. to harvest, process and test market rock crab meat in various forms. Working in conjunction with the Processing Division and M.D.C., approximately 35,000 pounds were processed and marketed under the agreement. Samples were forwarded to a number of buyers in Canada and the United States for evaluation. Fresh product was also supplied to Island retail outlets on a consignment basis to enable people to become familiar with this product. Belle River Enterprises continued to process crab meat after the contract terminated and were successful in developing a market that will hopefully grow in 1984.

Silversides

A contract was entered into with Northumberland Seafoods to financially assist in the transportation of three container loads of silversides for sale in Europe, a market that holds promise to be a steady one on a long term basis. The silversides, supplied by fishermen, were processed by member processors of Northumberland Seafoods.

Samples of silversides were also forwarded to the western U.S. to determine their acceptance as food for zoo animals. Additional work on this aspect will be carried out in 1984.

Hake (Canadian Whiting)

In an effort to promote the utilization of P.E.I. hake a joint project between the Market Development Center and the Division was carried out to produce and market Canadian whiting in one pound vacuum packs in Western Canada. Fifteen thousand pounds of whiting was produced with appropriate labels and shipped to Calgary, Alberta. Information received indicates a positive reception by the distributors and retail stores. It is anticipated that additional efforts will be made in this regard in 1984.

A number of samples of round hake were also forwarded to potential buyers on behalf of the P.E.I. Fishermen's Association for evaluation in the European market. Some positive reaction has been received and may result in sales of this species in 1984.

Oak Bows

In an effort to assist in the familiarity and acceptance by the local lobster fishermen of one-piece oak trap bows fabricated by Leoville Industries in Leoville, P.E.I., a number of bows were made available to Port Committee Chairmen at ports throughout P.E.I. Port Chairmen and members of the Port Committees were asked to inform fellow fishermen about the bows and utilize them in the construction of their lobster traps for evaluation. Positive reaction was received by the Leoville Industries manager and the Department from a number of fishermen throughout P.E.I. who feel that these bows may be a suitable substitute if not superior to those which they are now using.

FRESH FISH MARKET ASSISTANCE

This program was designed to create a year round availability of fresh fish for Island consumers and visitors, and to provide further outlets for fishermen's catches. Twelve month availability is to be achieved by the development of an adequate wholesale service for fresh product, and by increasing the number of fresh fish retail outlets across P.E.I.

Assistance has been provided to Aiden Doiron, North Rustico to help ensure the provision of a variety of fresh fish species. Whole fish is obtained mainly from Island sources and species that are not available on P.E.I. are obtained from off-Island. The fish is processed and made available to retail outlets, fresh fish markets and fish peddlers on demand.

The retail segment of the program provides for 50% of the capital costs of the facility and equipment to a maximum grant of $5,000. Seven of the 14 establishments assisted by the program were new, while seven grants were provided to upgrade existing fresh fish outlets.

To highlight the efforts of fish markets and food stores in presenting good quality fresh fish the Department and the Market Development Centre sponsored a contest during the past summer. Prizes were awarded to the fish markets and supermarkets with the most attractive presentations of fresh fish. The winner of the contest in the fish market category was "Finny's Fish Market" of Charlottetown with "Polar Seafoods Ltd." of Summerside the runner-up. "Dockside Fish Market" at the Co-op Food Centre in Charlottetown was judged as having the best display in the supermarket category, with "Ken's Korner" of Charlottetown the runner-up. The winners in each category were awarded an individual prize of $100.00 and the runners-up individual prizes of $50.00.

Posters, display materials, recipe booklets and other promotional material were provided to the retailers and technical advice on handling fish was provided on demand.

TRADE SHOWS

This Division was involved in researching the potential of P.E.I. fish products in such areas as Boston, Chicago and Calgary during 1983.

Seafood 83 (Boston)

Attendance at this Trade show in February in conjunction with P.E.I. processors and other P.E.I. government agencies provided a great deal of information on the seafood trade in the New England States. This joint U.S.-Canadian show attracted 120 exhibitors with 64 exhibits included from Canada. Visits were made to the Boston Fish Auction and fresh fish processor/distributors with a view towards developing a market for P.E.I.'s fresh fish during the summer months.

Seafood Expo (Chicago)

Attendance at Chicago Seafood Expo in early September enabled staff of the Division to obtain first hand knowledge of the seafood market in the Central U.S. Special seminars on seafood marketing were presented with speakers from throughout the U.S. Visits were made to processing establishments in the Chicago area,

samples of Island fish products were provided and discussions were held with a number of the 106 exhibitors from throughout Canada and the U.S. Reg Bryan, Manager of Co-op Food Center in Charlottetown was financially assisted to attend this show and reported he had learned a great deal about the retail seafood trade during his visit.

Food and Hospitality Show (Alberta)

Representatives from the Department participated in the Alberta Food and Hospitality Show in late September. The show was sponsored by the Alberta Restaurant and Food Services Association and was attended by a wide range of interests in the food and restaurant trade. Approximately 300 companies and/or businesses put on displays representing different parts of Canada and U.S. During the show, mussels, oysters, lobster, rock crab, smoked eel, scallops and whiting (hake), were prepared and available for sampling. Brochures on various aspects of the P.E.I. seafood industry were available and passed out on request.

The presence of the P.E.I. Department of Fisheries at the show helped demonstrate an interest in the western market and provided information on products and P.E.I.

LAB AND TEST KITCHEN

This project was designed to make Islanders and visitors to the Island more aware of the fish species that are available and the proper methods for preparing them. The objective of the project, as well, was to improve the image of seafood products and encourage consumption in markets available to us.

The lab facility itself served as a base of operations for Production Division summer employees, and was also used by the Processing and Quality Division for yield and other specific tests on various fish species. The facility as well was made available to fish processors and researchers for conducting numerous varied experiments.

Seafood Promotion

Seafood demonstrations were carried out at campgrounds, fairs and exhibitions, and special events by two teams of summer students. A student Home Economist served as a supervisor of the two teams and organized activities for the summer months. The students also tested recipes for rock crab, designed recipe cards and promotional leaflets and arranged demonstrations at special locations. Promotional material on preserving fish and shellfish was prepared for a seminar on preserving food. Posters, pamphlets and recipes were distributed to the major fish outlets throughout P.E.I. and advice was given to those who recently opened retail seafood outlets.

Advertisements were carried in Western Canada Trade magazines in co-operation with the Market Development Center and special promotions were carried out during November Fish and Seafood month.

Fish Barbecues

Seafood barbecues were carried out on 58 occasions at campgrounds throughout the Province serving samples to some 2,433 individuals. Special barbecues and fish cooking demonstrations were put on for the Royal Visit, the New England Governors and Eastern Canadian Premier's Conference, the Shellfish Culture Course, Northumberland Fisheries Festival, Basin Head Museum, Miminegash Days, the Blueberry Festival, Georgetown Days, Eastern Kings Days, UPEI Elder Hostel and the Women's Institute serving samples to approximately 1,500 individuals.

The barbecues and fish demonstrations allowed Island residents and many summer visitors to experience the taste of fresh Island seafood cooked on a barbecue. Instruction was given on the proper methods of barbecuing fish, recipes were provided to allow those in attendance to have the information necessary to prepare their own fish and information was provided on where fish was available to a total of 3,900 individuals.

Trade Fair

This Division supplied smoked fish, rock crab dip, and complimentary items for the reception at the official opening of the Prince

County Trade Fair. The trade fair consisted of approximately 70 exhibitors and fish was supplied for the 100 invited guests.

Special Promotions

This Division, in cooperation with the Market Development Centre, provided a buffet seafood meal for the official opening of the Charlottetown Festival Musical, Johnny Belinda, in Toronto, Ontario. The opening took place at the O'Keefe Centre and Island seafood products were provided to approximately 300 people. The Department also provided fisheries related items to decorate the reception area at the O'Keefe Centre. The seafood buffet was impressive and the Toronto press covered the event, giving a good deal of recognition to the range of seafood products available from P.E.I.

Funds were provided to the Culinary Institute at Holland College to assist in the purchase of specialty seafood products from P.E.I. for an International Chefs competition in Osaka, Japan. The Canadian chefs had an excellent display of several seafood products from P.E.I. The Canadian team captured the gold medal for scoring above 95% and placed third in overall standings against 12 other countries.

STATISTICS

Statistical information was compiled on a regular basis for the benefit of the fishing industry and various levels of government.

Information was compiled on a weekly basis on fish prices and market conditions and was provided to the industry through the Department's radio program and Island newspapers.

Information was updated in areas such as fish landings and values, seafood production, employment levels in fishing and processing and other related information.

A comprehensive study was carried out showing the attitudes of those involved in the Food Service Industry toward seafood and detailed information was compiled on the tuna fishery on P.E.I.

Food Service Study

The study on "Seafood Demand in the Food Service Industry" carried out throughout P.E.I. in the summer of 1983, showed the attitudes of restaurant owners, managers and chefs in year round and seasonal restaurants. The restaurants' opinions and habits of purchasing and serving fish were discussed, as well as any problem they perceive with fish. The study was conducted throughout P.E.I. with 61 restaurants participating.

Information was collected on the following topics: the species of fish purchased and served, the monthly requirements of individual fish species, the suppliers of fish, the contribution seafood makes to a restaurant's total sales, and the problems surrounding seafood.

Some of the results of the survey were very interesting and are as follows:

(1) All of the restaurants surveyed served some type of seafood. With respect to the year round restaurants surveyed, 24% offered just frozen fish, 6% offered just fresh fish and 70% of the restaurants offered both. Forty-six percent of these restaurants also offered other types of seafood such as canned, salted, smoked and marinated fish. With respect to the seasonal restaurants surveyed, 36% offered just fresh fish and 64% offered both fresh and frozen. Sixty-three percent of the seasonal restaurants offered canned, salted, smoked, and marinated as well.

(2) Seafood contributes 44% to the total sales in participating year round restaurants and 71% in participating seasonal restaurants. Fresh fish contributes 37% to the total fish and seafood sales in year round restaurants and 63% in seasonal restaurants.

(3) The prime seafood problem that restaurants have encountered is the inconsistent availability of fresh fish on a year round basis.

(4) The three fresh fish species served most frequently in both seasonal and year round restaurants are lobster, scallops, and

clams. The three frozen fish species served most frequently in year round and seasonal restaurants are haddock, halibut and scallops.

(5) The main suppliers of fresh fish are fishermen and peddlers while the main suppliers of frozen fish are processors and wholesale distributors.

(6) The majority of participating restaurants prefer to deal with frozen fish during the winter months since business is generally slower and the risk factors involved in the storage and handling of fresh fish.

(7) A number of participating restaurants would like to see the enforcement of a dating system to determine the actual age of the fish.

Tuna

This Division annually monitors and analyzes tuna fishermen's catch records to provide a base for future management decisions.

The bluefin fishery has grown from a total of five fish landed in 1967 to a high of 1,048 fish landed in 1974. In 1982, 390 bluefin tuna were landed. In 1983, the allowable quota was extended to permit the landing of 660 bluefin tuna on P.E.I. Due to the inability of other areas to fill their quotas, P.E.I. tuna fishermen were allowed to surpass the quota, and a total of 789 tuna were landed.

In 1981 a "tended line fishing method" was introduced to this fishery. Rod and reel fishing continued from some ports, by those fishermen who chartered their fishing boats. Six hundred and fifty nine bluefin tuna were landed in 1983 by the tended line fishing method while 130 bluefin tuna were landed by rod and reel.

The average weight of tuna landed in 1983 was 956 pounds with the largest tuna weighing 1,317 pounds. For comparison, in 1982, the largest tuna weighed 1,235 pounds and the average weight of all tuna landings was 895 while in 1981 the largest tuna weighed 1,325 pounds with the average weight being 939 pounds.

This Division represents the Department on the Atlantic Bluefin Tuna Advisory Committee. This committee develops management proposals on an annual basis for consideration and approval by the Federal Minister of Fisheries and Oceans.

Following is a summary of the number of tuna landed by port for the past four years:

Port	1980	1981	1982	*1983
Skinners Pond	6	)	6	)
Sea Cow Pond	7	)328	40	)444
Tignish	122	)	187	)
Malpeque	—	—	1	3
New London	2	—	—	—
North Rustico	14	12	14	22
French River	—	—	—	15
Stanley Bridge	—	—	—	4
Tracadie	2	—	—	2
Savage Harbour	18	6	5	18
Morell	30	9	4	17
Naufrage	34	12	10	61
North Lake	76	66	44	103
Souris	17	—	—	1
Fortune	2	—	3	—
Annandale	7	—	1	+
Launching	1	—	—	—
Graham's Pond	14	—	6	10
Beach Point	48)	82)	29	46
Murray Harbour	—)	—)	42	42
TOTAL	410	515	392	789

* Preliminary

Resource Monitoring

The Resource Monitoring Program was an Island wide project employing individuals in each of the three counties to monitor the commercial landings of a variety of fish species. The primary data collected was length frequencies of fin fish, meat count in scallops, and herring and mackerel fat content analysis. The table below indicates the number of each species of fish from which data was collected, as well as the average length of these species in the commercial catch.

Fish Species	Number Measured	Mean $\bar{X}$ Length (mm)
Cod	6757	55.3 $\pm$ 3.3
White Hake	4541	67.4 $\pm$ 8.8
Redfish	4363	31.7 $\pm$ 3.3
Mackerel	1297	33.5 $\pm$ 4.5
Herring	3294	30.1 $\pm$ 1.9
Flatfish	1306	32.1 $\pm$ 5.7

There were also over 300 samples in the scallop fishery giving an average meat yield per pound of 36.4 (meats pound). The herring fat content also increased to suitable levels — a mean of 20% in June.

The data collected under this program is useful for market research work and can be used as a guide to indicate the size of fish species landed. The fat content of herring is a good indicator to identify fish for the smoking process. This program also provides basic information that helps assess the province's position within the various fisheries management and industry development strategies for the industry.

Fishing Industry Technology

The Fishing Industry Technology Program was initiated to assess opportunities for application of computer technology in the fishing industry. Once opportunities have been clearly identified and assessed the program will provide for the development of software appropriate to fishing industry uses.

Discussions have been held with P.E.I. fish processors particularly in regard to applying the technology to assist in plant productivity improvement. Processing plants are being assessed to determine the need for updated technology and establish cost saving opportunities and data requirements. It is hoped that these assessments will result in a package being developed that can be demonstrated to other processing plants so they can determine their individual need for this technology.

GENERAL

A Marketing Working Group was formed by the Production Division during 1983. The group, which was formed with the support of the fishing industry, consists of representatives from fishermen's and processor's organizations, the Prince Edward Island Department of Fisheries, the Market Development Center, the Department of Fisheries and Oceans (P.E.I.) and Department of Industry, Trade annd Commerce (D.R.I.E.). The working group was formed to evaluate marketing strategies, develop promotional programs and to improve communication between fishermen, processors and government agencies with regard to marketing and promotion. The committee has held meetings since early summer and has covered such subjects as sales of hake, salt fish markets, over the side sales, and mackerel development.

Staff of this division also represented the Department on a number of species management committees namely: Atlantic and Gulf Groundfish Advisory Committees, Snow Crab, Herring, Mackerel, Bluefin Tuna and the Lobster Committees in Districts 7, 7B and 8. These committees develop management proposals on an annual basis for consideration and approval by the Federal Minister of Fisheries and Oceans. Provincial representatives help to ensure that the interests of the province are maintained through the negotiation procedure. Membership is also held on the P.E.I. Marketing Council and the joint P.E.I. Market Development Center — P.E.I. Fisheries Planning Committee.

PROCESSING AND QUALITY

Don B. Judson, Lloyd G. Murphy

The role of the Processing and Quality Division is to increase the availability and utilization of raw material, encourage innovative processing techniques and improve fish quality. Two personnel act as a resource center for the fish and seaplant processing sectors. The Division implements the P.E.I. Fish Inspection Act and Regulations and Provincial Vessel Subsidy, Fleet Development and Diesel Engine Conversion Programs. Support is also provided to the processor sector in the preparation of financial packages for new developments and loan guarantees.

Activities undertaken during the twelve months ending December 31, 1983 follow:

CULTURED MUSSEL DEVELOPMENT

Processing

1983 marked another successful year for the evolvement of a cultured blue mussel industry on P.E.I. Production and growth rate were very encouraging with the number of growers staying the same.

An unfortunate and unusual flow of heavy ice into some rivers in the eastern end of P.E.I. during the spring break-up caused heavy mussel losses. As a result the growers could not fill all their orders on the fresh market. The growers had plans to supply surplus quantities over the fresh market volume for processing trials. A major effort was planned to process approximately 40,000 pounds into chowder, smoked meats and marinated meats. This project was delayed and will be carried out in 1984.

Mussel Processing Equipment

Using the declumping-washer-grader machines, purchased by the Department in 1982 from Holland, as models, two local metal firms have manufactured similar mussel machines for the mussel growers on P.E.I. and Nova Scotia. These firms are presently looking at the possibility of building a mussel debyssing machine which is used to remove byssus threads prior to processing.

Meat Yield

The mussel meat yield monitoring program which began in 1982 was continued throughout 1983. This program provides a service to the mussel growers around the Island by assessing mussel meat yields and pearl analysis on a weekly basis. The data collected proves invaluable to the individual growers and to the industry in many aspects including growing, harvesting and selling/buying operations.

ROCK CRAB PROCESSING

A private entrepreneur and the Department entered into a joint project to determine the feasibility of processing rock crab. Thirty-five thousand pounds of rock crab were processed over a ten week period. The product forms were frozen five pound blocks, frozen one pound vacuum pack on trays and fresh six ounce tubs.

These products were test marketed locally, and in Montreal and Calgary. The quality of the product was excellent, however, obtaining the required price proved difficult. The processing operation is very labour intensive and it was determined that high volume through put or a combined operation with lobster processing would be necessary in order to make a rock crab processing operation viable.

In 1984 further work will be carried out to determine the feasibility of lowering processing costs by the use of machine meat extraction as opposed to manual.

PROCESSING TECHNOLOGY

This program supplies financial assistance to a processing firm to lease a particular machine on a trial basis to assess its suitability for a particular operation.

Over the past year three processing plants took advantage of this program for testing of a skinning machine, a fish grading machine and a herring filleting machine.

FISH QUALITY

Fish Inspection Act

The P.E.I. Fish Inspection Act and Regulations gives the province authority to ensure that seafood is bought, processed and sold under sanitary conditions. This is accomplished by assuring all establishments meet the required inspection standards. A qualified technician monitored all processing establishments during the summer and fall operating season, assisting them in identifying requirements necessary to bring individual establishments up to standard. He also worked with the operators to assist them in getting a better understanding of good fish plant practices.

During the 1983 season a total of 16 non-export fish processing plants and 61 buyers were licensed.

Quality Control (In-Plant)

This program provides financial assistance to processing firms to hire a trained graduate from the Fisheries Technology Program (Holland College, Summerside) to work in the plant at setting up an in-plant quality control program.

In the very near future every Federally Registered Plant will be forced by law to have an in-plant quality control program for the plant and also have the necessary qualified personnel to run the program.

In 1983 one processing firm took advantage of the program and both the Company and Federal Fisheries and Oceans were very pleased with the results.

FINANCIAL SUPPORT

Fish processors, fishermen and service industries, e.g. boat builders are assisted in preparing financial packages that will lead to development of their respective enterprises. Such packages include applications for development grants, capital or operating loans, and loan guarantees. The Division maintains a close liaison with industry organizations including seafood processors, boat builders and fishermen's groups and works cooperatively with them to develop their interests.

PROVINCIAL VESSEL SUBSIDY PROGRAM

This program, initiated on March 2, 1978 provides Island fishermen with a 15% subsidy on the total cost of new vessels to a maximum of $3,500 for those vessels purchased on P.E.I. A maximum subsidy of $2,000 is available for outfitting vessel hulls built off-Island with equipment purchased on P.E.I.

The objective of the program is to encourage fishermen to continually upgrade the average age of inshore vessels engaged in the province's fishery and to remain current with changes in vessel construction and outfitting.

A total of 67 fishermen received the Provincial Subsidy on their new boats constructed in local boat shops during the fiscal year 1982-83. The total amount of subsidy paid out was $185,185 for an average of $2,764 per application. A total of 27 fishermen received the subsidy in the current fiscal year (to December 31, 1983). The total amount of subsidy paid was $67,613 for an average of $2,504.

The Department during the 1982 fall planning sessions with fishermen's and boatbuilding groups determined that fishermen should continue to purchase the boat model of his choice and that a differential subsidy should be available to those fishermen who construct vessel hulls in off Island boatshops but purchase their outfitting equipment from Island suppliers.

Eleven fishermen received subsidies to outfit their vessels with equipment purchased on P.E.I. in 1982-83 and received a total of $20,238 for an average of $1,840 per application.

The Vessel Subsidy Program came to a close on July 15, 1983, for acceptance of new applications. Those approved prior to July 15th, have until March 31, 1984 to complete their new vessel. Applications received since July 15th are eligible to receive assistance under the Fishermen's Investment Incentive Program reported on later.

FLEET DEVELOPMENT

The fishery economy of P.E.I. is highly dependent upon the annual volume of raw material (fish landings) available to P.E.I. processing plants. It is in the Province's best interest to increase this volume where possible and to ensure that all fish catches are landed in a quality oriented manner. In order to do this fishermen must have modern seaworthy boats capable of using current harvesting techniques in a most efficient manner. The Department initiated a fleet development program of providing financial incentives to fishermen to convert their vessels to diesel power, install onboard quality fish handling systems and expand the near and offshore fleet. The report on each segment of the program follows:

Diesel Engine Conversion Program

Diesel engines are more fuel efficient than gasoline models, maintenance is usually minimal and the operating life of a diesel engine is much longer than gasoline. The diesel engine is more reliable and dependable under arduous conditions. Although the initial investment for a diesel engine is somewhat higher than the gasoline engine, the savings realized from using less fuel (up to 50% less) would pay for the difference in a very short time. To assist fishermen with the initial high cost of conversion from gasoline to diesel engines, the Department provides a grant of 25% of the capital cost to a maximum of $2,500 for new diesel engines installed in existing vessels powered by gasoline engines for at least one fishing season. The program was initiated on April 1, 1982 and provided for retroactive applications back to November 15, 1979 those being approved at $1,500 and $500 for the year to November 15, 1981 and to November 15, 1980 respectively.

The total number of fishermen receiving financial assistance on their new diesel engines up to December 31, 1982 was 84. Thirty five were retroactive applications and 49 were for the nine month

period to December 31, 1982. During the calendar year to December 31, 1983, 49 fishermen received financial assistance on new diesel engines and 33 additional applications have been approved. The 49 fishermen received a total of $113,142 for an average assistance of $2,309.

On Board Fish Handling Systems Program

The marketplace demands that fish be of high and consistent quality. In order to improve the quality of fish landed by larger vessels the Department provides assistance to commercial vessel owners at the rate of 25% of the installed capital cost to a maximum of $10,000 for onboard fish gutting machinery and fish cooling units. On board fish gutting machines were placed on two 65 foot draggers operating out of Georgetown in 1982, however no applications for assistance were received in 1983.

Near and Offshore Fleet Development Program

The Department has been actively assessing alternate methods of increasing the overall annual volume of raw materials landed on P.E.I. by vessels larger than 30 gross tons. A limited number of these vessels can be engaged in the ground fishery in the Gulf Region based on license limitations. Options appear to be construction of near shore vessels by fishermen who now have the required licenses and the acquisition of new or used medium or large offshore vessels which have the required licenses with them.

A policy respecting the level of financial assistance is in place which provides Island fishermen with a grant of 25% of the capital cost to a maximum of $60,000 if the project is eligible for Federal Vessel Construction Assistance or 35% to a maximum of $80,000 if it is ineligible for Federal Vessel Construction Assistance.

In 1983, two Souris area fishermen received assistance under this program. Two fiberglass vessels, 45 feet and 47 feet in length overall, were constructed at Navy Island Marine Inc. in Dartmouth, N.S. for owners Daniel Ehler and Jerry Sutherland. The vessels have a beam of 16' 6" draught of 6' 6" and a hold capacity of 50,000 lbs. Gross registered tonnage of each of the vessels is approximately 46 tons. The owners will be operating their vessels as

pair seiners and with this type of deep draught vessel expect to lengthen their fishing season. It is projected that these two boats will form the nucleus of a small near shore fleet operating from one of P.E.I.'s deep water fishing ports.

SEAWEED STABILIZATION PROGRAMME

The mixed moss (Irish Moss and Furcellaria) industry in Eastern Kings County is highly dependent upon one market outlet. The main buyer is experiencing reduced demand for the processed product and desires to reduce the inventory holdings over a reasonable period of time. The Department in the interest of stabilizing the harvest of this portion of the seaplants industry entered into an agreement with P.E.I. Seaweeds Ltd. to continue to buy good quality mixed moss which the Province of P.E.I. would hold as inventory until normal shipping time to the overseas buyer in the following spring and summer. The province absorbed the inventory holding costs on $500,000 value of 1982 production of dried mixed moss which was delivered to the overseas buyer during the 1983 year.

Current economic conditions dictated that the main buyer would not be buying in the 1983 season again due to high inventory holding costs and more pronounced lower demand for processed product. A similar agreement between the Province and P.E.I. Seaweed Limited for the 1983 season resulted in the Province holding inventory to a value of $372,900 which will be delivered to the overseas buyer during 1984.

FISHERMEN'S INVESTMENT INCENTIVE PROGRAM

Fishermen have long pressed for preferential interest rates for monies that they must invest directly into their fishing enterprises. They maintain that direct financial grants usually put individual fishermen in a position of increasing their debt load for capital items at inappropriate times. The Department supports the investment incentive method of providing assistance to the primary fishing industry as it would enable individual fishermen to develop his enterprise in an orderly manner and retain a balanced financial business package. Assistance is provided in the form of a four percentage point interest reduction grant paid directly to the fishermen upon receipt from a recognized lending institution of itemized charges related to approved projects. Eligible projects can include new or used capital asset

purchases, acquisition of fishing enterprises and fishing privileges, repairs to capital items and working capital loans.

The program came into effect May 24, 1983 and during the period to December 31, 1983, 67 applications have been received for assistance covering a broad range of eligible projects.

APPENDIX I

P.E.I. LOBSTER LANDINGS AND VALUES

(1920 - 1983)

V = Values in ($000's)
Q = Quantity in millions lbs.

	Q	V		Q	V
20	8.3	703.9	1950	9.9	1,963.0
21	6.4	255.3	51	8.3	1,702.0
22	8.8	651.4	52	8.4	1,849.0
23	9.7	878.8	53	7.0	1,997.0
24	6.5	564.8	54	7.4	1,977.0
25	7.9	661.1	55	8.3	2,324.0
26	6.6	601.8	56	9.7	2,726.8
27	6.3	617.1	57	8.5	2,456.3
28	6.6	553.1	58	8.0	2,510.2
29	7.4	621.5	59	8.4	2,843.2
Avg. 20's	7.5	610.9	Avg. 50's	8.3	2,236.8
1930	8.1	539.7	1960	10.1	3,212.3
31	9.4	553.7	61	9.5	3,055.0
32	11.5	551.7	62	8.7	3,218.9
33	9.2	396.2	63	7.4	3,155.8
34	7.7	536.0	64	7.8	4,210.8
35	6.4	467.8	65	8.8	5,176.6
36	6.0	544.4	66	7.9	3,925.7
37	5.8	524.8	67	9.0	5,228.8
38	7.1	458.8	68	8.7	5,328.9
39	7.0	464.4	69	8.2	5,375.8
Avg. 30's	7.8	503.8	Avg. 60's	8.6	4,188.9
1940	5.6	353.9	1970	8.7	6,231.2
41	6.0	469.2	71	8.2	5,860.6
42	6.4	694.8	72	7.3	6,360.8
43	6.0	999.9	73	7.7	7,503.2
44	6.6	1,149.7	74	6.2	6,347.0
45	8.1	1,503.6	75	8.6	8,135.5
46	7.9	1,962.7	76	8.5	8,510.5
47	6.2	1,070.0	77	9.1	10,012 0
48	6.5	1,411.9	78	11.1	16,648.6
49	6.8	1,388.4	79	11.8	18,073.9
Avg. 40's	6.6	1,102.4	Avg. 70's	8.7	9,368.3
1980	11.8	15,458.0	1982	12.2	22,599.0
1981	11.9	18,519.0	1983	15.5	29,056.1

STATEMENT OF DEPARTMENT EXPENDITURES

ADMINISTRATION			
Implementation			
Administration	29,818		
Equipment	2,077		
Materials and Supplies	13,449		
Professional Services	2,017		
Salaries	191,139		
Travel	17,644	256,144	
Financial Assistance			
Administration	1,104		
Debt	37,394		
Grants			
P.E.I. Seafood Processors	8,286		
P.E.I. Lending Authority	106,672	153,456	
Youth Development			
Travel		3,347	412,947
EXTENSION			
Implementation			
Salaries	94,903		
Travel	17,090	111,993	
INFORMATION			
Materials and Supplies	23,364		
Salaries	10,094		
Travel	3,963	37,421	
TECHNICAL UPGRADING			
Administration	1,090		
Professional Services	15,283		
Salaries			
Grants			
Travel Grant for Fisherman	10,210	26,583	
PORT MAINTENANCE			
Materials and Supplies	112,419		
Professional Services	1,080	113,499	

RESOURCE MONITORING

Materials and Supplies	1,942		
Salaries	23,645		
Travel	8,688	34,275	

AQUACULTURE INCENTIVE PROGRAM

Grants			
Aquaculture Incentive Program		49,972	373,743

PRODUCTION

Implementation

Salaries	63,090		
Travel	12,458	75,548	

Test Production

Materials and Supplies	18,029		
Professional Services	7,952	25,981	

Lab and Test Kitchen

Materials and Supplies	4,996		
Salaries	28,933		
Travel	4,972	38,901	

STATISTICS

Materials and Supplies	1,952		
Salaries	31,109		
Travel	1,508	34,569	

FRESH FISH MARKET ASSISTANCE

Grants			
Fresh Fish Market Assistance		54,656	

FLEET DEVELOPMENT PROGRAM

Grants			
Fleet Development Program		213,347	

VESSEL CONSTRUCTION

Salaries	593		
Travel	208		
Grants			
Vessel Construction	217,728	218,529	661,531

PROCESSINGS AND QUALITY			
Implementation			
Salaries	62,266		
Travel	5,227	67,493	
Professional Services			
Professional Services		40,783	
Technology Improvement			
Equipment	10,401		
Materials and Supplies	10,941	21,342	
Quality Enhancement			
Equipment			
Materials and Supplies	2,702		
Salaries	38,156		
Travel	8,617	49,475	
Seaweed Market Stabilization			
Materials and Supplies		500,000	679,093
TOTAL FISHERIES			$1,684,312

POOR

QUALITY

ORIGINAL